

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

534, 534
PCT/FR2003/050198



Applicant's or agent's file reference B 14247.3JCI	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/050198	International filing date (day/month/year) 22 décembre 2003 (22.12.2003)	Priority date (day/month/year) 23 décembre 2002 (23.12.2002)
International Patent Classification (IPC) or national classification and IPC G01B 11/06, 11/24, H01L 21/66		
Applicant COMMISSARIAT A L'ENERGIE ATOMIQUE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of _____ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 24 juin 2004 (24.06.2004)	Date of completion of this report 03 August 2004 (03.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/050198

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

☐ the international application as originally filed.

☒ the description, pages 1-10, as originally filed,
pages _____, filed with the demand,
pages _____, filed with the letter of _____,
pages _____, filed with the letter of _____.

☒ the claims, Nos. 1-7, as originally filed,
Nos. _____, as amended under Article 19,
Nos. _____, filed with the demand,
Nos. _____, filed with the letter of _____,
Nos. _____, filed with the letter of _____.

☒ the drawings, sheets/fig 1/4-4/4, as originally filed,
sheets/fig _____, filed with the demand,
sheets/fig _____, filed with the letter of _____,
sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, Nos. _____

☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-7	YES
	Claims		NO
Inventive step (IS)	Claims	1-7	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: WO-A-02/27288;
D2: US-A-6 483 580;
D3: US-A-5 900 633;
D4: US-A-6 462 817.

1. Technical field:

The determination of the parameters of a raised portion in a structure, in particular, in the field of microelectronics.

2. The prior art:

The documents in the international search report disclose methods in which a reflection spectrum is measured and points thereof are compared with corresponding points in a test spectrum in order to determine parameters (height, width, etc.) for modelling the raised portion. In documents D1 to D4, selected ranges (and, thus, selected points) of the spectrum, in which sensitivity to one or more parameters is particularly high, are used for the

comparison with the test spectrum.

3. Novelty (PCT Article 33(2))

The subject matter of independent claim 1 differs from the method in documents D1 to D4 in that the parameters are adjusted in sequence in an order determined by test spectrum sensitivity to said parameters, and in that the parameter(s) having the most influence on said spectrum are adjusted first, and so on. It follows that the subject matter of claim 1 is novel.

4. Inventive step (PCT Article 33(3))

The special features in claim 1 make it possible to generate parameters more efficiently. Documents D1 to D4 disclose the selection of spectrum ranges but do not mention the identification of the most influential parameter(s) or the selection of the sequence defined in claim 1. Similarly, there is nothing in the other search report documents to indicate the use of these features. As a result, the subject matter of claim 1 also involves an inventive step.

5. Dependent claims

Claims 2 to 7 merely add specific features to the subject matter of claim 1. It follows that the subject matter of claims 2 to 7 is also novel and involves an inventive step.

6. Industrial applicability (PCT Article 33(4))

The subject matter of claims 1 to 7 is industrially applicable, for example, in order to inspect the quality of microelectronic structures.

ADDITIONAL OBSERVATIONS

Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not indicate the relevant prior art disclosed in documents D1 to D4, nor does it cite said documents.